

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strike through~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND claim 5 in accordance with the following:

1. (CANCELLED).
2. (CANCELLED).
3. (CANCELLED).
4. (CANCELLED).

5. (CURRENTLY AMENDED) A network transaction system in which a customer's terminal station is connected to a first bank system via a an open network and the first bank system is connected to a second bank system via an inter-network, the customer having an existing bank account in the second bank system and attempting to newly open a bank account in the first bank system, the network transaction system comprising:

customer processing means disposed at the terminal station and coupled to the open network, said customer processing means for applying for a new bank account by supplying via the open network the first bank system with existing account information descriptive of the existing bank account owned by the customer in the second bank system;

first bank processing means disposed at the first bank system and coupled to the first open network and inter-networks, said first bank processing means for requesting via the inter-networks the second bank system to make a confirmation of the existing bank account while forwarding the existing account information received from the customer processing means to the second bank system over the inter-network, and for opening the applied new bank account based on a confirmation response message received via the inter-network from the second bank system describing a result of the confirmation of the existing bank account, wherein the first bank processing means authenticates the customer based on the confirmation; and

second bank processing means disposed at the second bank system and coupled to the inter-network, said ~~first~~ second bank processing means for confirming validity of the existing

bank account upon request from said first bank processing means, and for returning the confirmation response message to said first bank processing means to report the result of the confirmation of the existing bank account, wherein said customer processing means comprises:

(a1) customer key generation means for generating a customer secret key and a customer public key,
(a2) customer encryption means for assembling an account application message to be sent to said first bank processing means by:

encrypting account application information necessary for opening the new bank account by using the customer secret key and further by using a first bank public key,

encrypting the customer public key and a second bank identification code by using the first bank public key,

encrypting the existing account information by using the customer secret key and further by using a second bank public key, and

combining the encrypted account application information, the encrypted customer public key, the encrypted second bank identification code, and the encrypted existing account information, and

(a3) customer decryption means for obtaining new account acknowledgment information by decrypting an application response message received from said first bank processing means by using the customer secret key and further by using the first bank public key.

6. (PREVIOUSLY PRESENTED) A network transaction system according to claim 5, wherein said first bank processing means comprises:

(b1) first bank key generation means for generating a first bank secret key and the first bank public key,

(b2) first bank decryption means for:
obtaining the customer public key and the second bank identification code by decrypting the encrypted customer public key and the encrypted second bank identification code, as part of the account application message received from said customer processing means, by using the first bank public key,

obtaining the account application information by decrypting the encrypted account application information, as part of the account application message received from said customer processing means, by using the first bank secret key and further by using the obtained customer public key, and

obtaining the result of the confirmation of the existing bank account by decrypting the

confirmation response message from the second bank processing means by using the second bank public key, and

(b3) first bank encryption means for:

encrypting confirmation request information by using the second bank public key, and assembling a confirmation request message to be sent to said second bank processing means by combining the encrypted confirmation request information and the encrypted existing account information received from the customer processing means, wherein the confirmation request information includes a first bank identification code, the customer public key, and a confirmation request number.

7. (PREVIOUSLY PRESENTED) A network transaction system according to claim 6, wherein said second bank processing means comprises:

(c1) second bank key generation means for generating a second bank secret key and the second bank public key,

(c2) second bank decryption means for:

obtaining the first bank identification code, the customer public key, and the confirmation request number by decrypting the encrypted confirmation request information by using the second bank secret key and further by using the first bank public key, and

obtaining the existing account information by decrypting twice the encrypted existing account information by using the second bank secret key and further by using the above-obtained customer public key, and

(c3) second bank encryption means for encrypting the result of the confirmation of the existing bank account, the second bank identification code, and the confirmation request number by using the second bank secret key, and thereby assembling the confirmation response message to be sent to said first bank processing means.

8. (CANCELLED).

9. (CANCELLED).

10. (CANCELLED).

11. (CANCELLED).

12. (PREVIOUSLY PRESENTED) A user authentication method for cyberspace banking services of an open network, which services are provided by a plurality of banks interconnected via an inter-bank network, the plurality of bank systems including a first bank and a second bank, the customer having an existing bank account in the second bank and

newly issuing an account application for a bank account in the first bank, the user authentication method comprising :

- (a) being supplied by the customer via the open network with first information which is obtained by encrypting account application information necessary for opening a new bank account by using a customer secret key and further by a first bank public key;
- (b) being supplied by the customer via the open network with second information which is obtained by encrypting a customer public key and a second bank identification code by using the first bank public key;
- (c) being supplied by the customer via the open network with third information which is obtained by encrypting existing account information by using the customer secret key and further by using a second bank public key, wherein the existing account information is descriptive of the existing bank account owned by the customer in the second bank;
- (d) decrypting the second information by using the first bank secret key to obtain the customer public key and the second bank identification code;
- (e) decrypting the first information by using the first bank secret key and further by using the decrypted customer public key to obtain the account application information;
- (f) encrypting the second bank identification code, the customer public key, and confirmation request information by using the second bank public key to obtain fourth information;
- (g) sending via the inter-bank network the third information and the fourth information to the second bank, thereby requesting via the inter-bank network the second bank to authenticate the customer based on the existing account information contained in the third information;
- (h) receiving via the inter-bank network a response from the second bank that reports the result of the authentication; and
- (i) deciding whether to accept or to reject the account application from the customer.

13. (PREVIOUSLY PRESENTED) A user authentication method for cyberspace banking services of an open network, which are provided by a bank where the customer has an existing bank account, the user authentication method comprising:

- (a) being supplied by the customer via the open network with first information which is produced by encrypting account application information and existing account information by using a customer secret key and further by a bank public key, wherein the account application information is information necessary for opening a new bank account and the existing account information is descriptive of the existing bank account owned by the customer in the bank;

(b) being supplied by the customer via the open network with second information which is produced by encrypting a customer public key by using the bank public key;

(c) decrypting the second information by using the bank secret key, thereby obtaining the customer public key;

(d) decrypting the first information by using the bank secret key and further by using the customer public key obtained in the step (c), thereby extracting the account application information and the existing account information;

(e) authenticating by an account information verification unit of the bank the customer's identity, based on the existing account information extracted in the step (d); and

(f) deciding by an account opening decision unit of the bank whether to accept or to reject the account application from the customer, based on the result of the authentication performed in the step (e).

14. (PREVIOUSLY PRESENTED) A user authentication method for cyberspace banking services of an open network, which are provided by a bank where the customer has an existing bank account, the user authentication method comprising:

(a) being supplied by the customer via the open network with first information which is produced by encrypting service request information and existing account information by using a customer secret key and further by a bank public key, wherein the service request information specifies service contents pertaining to the existing bank account and the existing account information is descriptive of the existing bank account owned by the customer in the bank;

(b) being supplied by the customer via the open network with second information which is produced by encrypting a customer public key by using the bank public key;

(c) decrypting the second information by using the bank secret key to obtain the customer public key;

(d) decrypting the first information by using the bank secret key and further by using the customer public key obtained in the step (c) so as to extract the service request information and the existing account information;

(e) authenticating by an account information verification unit of the bank the customer's identity, based on the existing account information extracted in the step (d); and

(f) deciding by an account opening decision unit of the bank whether to provide or not the service contents to the customer, based on the result of the authentication performed in the step (e).